bio-protocol Preprint

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BMSC isolation, cell culture, and immunostaining

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An abbreviated version of this protocol was published in eLIFE in Aug 2021

A bone-specific adipogenesis pathway in fat-free mice defines key origins and adaptations of bone marrow adipocytes with age and disease

DOI: 10.7554/eLife.66275

Detailed protocol

Hi Dilara,

I have attached our detailed step by step protocol. It is quite challenging to do this and I would recommend having at least two people helping to make sure the dissection and marrow isolation from the mice goes as quickly as possible. You will also need to pool bones from 9 to 12 mice per marrow fat sample. So, this experiment requires a lot of mice. You can do less if you use a larger species such as rats (ex. 2 rats per sample). If you would like to meet briefly to discuss the details, please feel free to email me directly (scheller@wustl.edu).

Erica

Related files

BMAT Cell Float and RNA extraction protocol - mouse.docx

How to cite:（Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used）

1. Zhang, X. and Scheller, E. (2021). BMSC isolation, cell culture, and immunostaining. Bio-protocol Preprint. bio-protocol.org/prep1462.
2. Zhang, X., Robles, H., Magee, K. L., Lorenz, M. R., Wang, Z., Harris, C. A., Craft, C. S. and Scheller, E. L.(2021). A bone-specific adipogenesis pathway in fat-free mice defines key origins and adaptations of bone marrow adipocytes with age and disease. eLIFE. DOI: 10.7554/eLife.66275

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